

Listing of Claims

This listing of claims replaces all prior versions and listings of claims in the patent application.

Claims 1-18. (Cancelled Without Prejudice)

Claim 19. (Currently Amendment) A method for incorporating functions of an automatic call distribution system in an interactive voice response system that is called and controlled by communication terminal equipment of a communication network, the method comprising the steps of:

directly coupling the automatic call distribution system and the interactive voice response system;

connecting both the interactive voice response system and the automatic call distribution system to a separate communication system of the communication network;

connecting at least one agent communication terminal equipment to the communication system;

allocating the at least one agent communication terminal equipment to the automatic call distribution system;

influencing the interactive voice response system by the communication terminal equipment wherein the interactive voice response system communicates a request for reserving an available one of the at least one agent communication terminal equipment to the automatic call distribution system;

reserving, via the automatic call distribution system, the available one of the at least one agent communication terminal equipment; and

transferring, given the request for reserving, and reservation of, the agent communication terminal equipment, by the communication system and outside of the automatic call distribution system the communication terminal equipment from the interactive voice response system to the reserved agent communication terminal equipment.

Claim 20. (Original) A method for incorporating functions of an automatic call distribution system in an interactive voice response system as claimed in claim 19, further comprising the steps of:

providing interfaces to both the interactive voice response system and the automatic call distribution system; and

coupling the respective interfaces of the interactive voice response system and the automatic call distribution system via a local area network.

Claim 21. (Original) A method for incorporating functions of an automatic call distribution system in an interactive voice response system as claimed in claim 19, further comprising the steps of:

interrogating a status of the agent communication terminal equipment by the interactive voice response system before the request for reserving is communicated; and

implementing the request for reserving dependent on the interrogated status.

Claim 22. (Original) A method for incorporating functions of an automatic call distribution system in an interactive voice response system as claimed in claim 19, further comprising the steps of:

cyclically interrogating a status of the agent communication terminal equipment by the interactive voice response system before the request for reserving is communicated; and

implementing the request for reserving dependent on the cyclically interrogated status.

Claim 23. (Original) A method for incorporating functions of an automatic call distribution system in an interactive voice response system as claimed in claim 19, further comprising the steps of:

noting, given an unavailable agent communication terminal equipment, a call back request communicated from an associated communication terminal equipment in the interactive voice response system with telephone number information associated with the communication terminal equipment; and

initiating an automatic call back with assistance from a further request for reserving, wherein a connection to the reserved agent communication terminal equipment is produced and

transferred first and a call back connection to the associated terminal equipment is produced and transferred thereafter.

Claim 24. (Previously Added) A method for incorporating functions of an automatic call distribution system in an interactive voice response system as claimed in claim 19, further comprising the step of:

effecting transfer of the communication terminal equipment to the reserved agent communication terminal equipment by performance features of call back and transfer initialized by the interactive voice response system.

Claim 25. (Original) A method for incorporating functions of an automatic call distribution system in an interactive voice response system as claimed in claim 19, further comprising the step of:

providing a request and an acknowledgment for each request for reserving between the interactive voice response system and the automatic call distribution system.

Claim 26. (Original) A method for incorporating functions of an automatic call distribution system in an interactive voice response system as claimed in claim 25, further comprising the step of:

providing request information associated with the request, the request information including a request function code, version information indicating a current version of the interactive voice response system communicating the request, identification identifying the respective automatic call distribution system, identification identifying the respective interactive voice response system, reference information identifying the request, and at least one request-dependent parameter.

Claim 27. (Original) A method for incorporating functions of an automatic call distribution system in an interactive voice response system as claimed in claim 25, further comprising the step of:

providing acknowledgment information associated with the request, the acknowledgment information including an acknowledgment function code, version information indicating a

current version of the automatic call distribution system communicating the acknowledgment, identification identifying the respective automatic call distribution system, identification identifying the respective interactive voice response system, reference information identifying the acknowledgment, and at least one acknowledgment-dependent parameter.

Claim 28. (Original) A method for incorporating functions of an automatic call distribution system in an interactive voice response system as claimed in claim 19, further comprising the steps of:

- inserting access protection information in a logon request;
- communicating the logon request to log the interactive voice response system on at the automatic call distribution system;
- inserting a check result of the logon request in a logon acknowledgment; and
- answering the logon request by the automatic call distribution system with the logon acknowledgment.

Claim 29. (Original) A method for incorporating functions of an automatic call distribution system in an interactive voice response system as claimed in claim 19, further comprising the steps of:

- inserting access protection information in a log off request;
- communicating the log off request to log the interactive voice response system off at the automatic call distribution system;
- inserting a check result of the log off request in a log off acknowledgment; and
- answering the log off request by the automatic call distribution system with the log off acknowledgment.

Claim 30. (Original) A method for incorporating functions of an automatic call distribution system in an interactive voice response system as claimed in claim 19, further comprising the steps of:

- inserting service information, in a status request, indicating a requested agent communication terminal equipment as a parameter; and

communicating the status request, which includes the parameter, of the associated automatic call distribution system from the interactive voice response system to the automatic call distribution system.

Claim 31. (Original). A method for incorporating functions of an automatic call distribution system in an interactive voice response system as claimed in claim 30, further comprising the step of:

communicating a status acknowledgment from the automatic call distribution system after the step of communicating a status request, wherein the status acknowledgment includes at least one of result information indicating a check of allowability of the status request, status information indicating an operating condition of the automatic call distribution system, agent information indicating the agent communication terminal equipment, report information indicating the agent communication terminal equipment, busy information indicating the agent communication terminal equipment, and availability information indicating the availability of the agent communication terminal equipment.

Claim 32. (Original) A method for incorporating functions of an automatic call distribution system in an interactive voice response system as claimed in claim 19, further comprising the step of:

inserting in the reservation request a parameter which includes at least one of service information requesting an arbitrary agent communication terminal equipment of a group of agent communication terminal equipment, waiting information indicating a time span for waiting for one of a group of agent communication terminal equipment, and status information indicating one of the reporting and non-reporting of the status of the reservation request.

Claim 33. (Original) A method for incorporating functions of an automatic call distribution system in an interactive voice response system as claimed in claim 32, further comprising the step of:

communicating a reservation acknowledgment from the automatic call distribution system after the step of communicating a reservation request, wherein the reservation acknowledgment includes at least one of event information indicating a check of allowability of

the reservation request, service information indicating a group of agent communication terminal equipment, telephone number information indicating a telephone number of the agent communication terminal equipment, and agent status information indicating the status of the requested agent communication terminal equipment.

Claim 34. (Original) A method for incorporating functions of an automatic call distribution system in an interactive voice response system as claimed in claim 32, further comprising the steps of:

inserting in a release request, as a parameter, an agent identification indicating the agent communication terminal equipment to be released; and

communicating the release request from the interactive voice response system to the automatic call distribution system.

Claim 35. (Original) A method for incorporating functions of an automatic call distribution system in an interactive voice response system as claimed in claim 19, further comprising the steps of:

inserting in a display request a parameter which includes at least one of agent identification identifying a specific agent communication terminal equipment, information to be displayed at the agent communication terminal equipment, an attention information effecting an attention tone at the affected agent communication terminal equipment; and

communicating the display request from the interactive voice response system to the automatic call distribution system.

Claim 36. (New) A method for incorporating functions of an automatic call distribution system in an interactive voice response system that is called and controlled by communication terminal equipment of a communication network, the method comprising the steps of:

directly coupling the automatic call distribution (system) and the interactive voice response system;

connecting both the interactive voice response system and the automatic call distribution system to a communication system of the communication network;

connecting at least one agent communication terminal equipment to the communication system;

allocating the at least one agent communication terminal equipment to the automatic call distribution system;

influencing the interactive voice response system by the communication terminal equipment wherein the interactive voice response system communicates a request for reserving an available one of the at least one agent communication terminal equipment to the automatic call distribution system;

reserving, via the automatic call distribution system, the available one of the at least one agent communication terminal equipment;

transferring, given the request for reserving, and reservation of, the agent communication terminal equipment, by the communication system and outside of the automatic call distribution system the communication terminal equipment from the interactive voice response system to the reserved agent communication terminal equipment;

providing interfaces to both the interactive voice response system and the automatic call distribution system; and

coupling the respective interfaces of the interactive voice response system and the automatic call distribution system via a local area network.

Claim 37. (New) A method for incorporating functions of an automatic call distribution system in an interactive voice response system that is called and controlled by communication terminal equipment of a communication network, the method comprising the steps of:

directly coupling the automatic call distribution (system) and the interactive voice response system;

connecting both the interactive voice response system and the automatic call distribution system to a communication system of the communication network;

connecting at least one agent communication terminal equipment to the communication system;

allocating the at least one agent communication terminal equipment to the automatic call distribution system;

influencing the interactive voice response system by the communication terminal equipment wherein the interactive voice response system communicates a request for reserving an available one of the at least one agent communication terminal equipment to the automatic call distribution system;

reserving, via the automatic call distribution system, the available one of the at least one agent communication terminal equipment;

transferring, given the request for reserving, and reservation of, the agent communication terminal equipment, by the communication system and outside of the automatic call distribution system the communication terminal equipment from the interactive voice response system to the reserved agent communication terminal equipment;

noting, given an unavailable agent communication terminal equipment, a call back request communicated from an associated communication terminal equipment in the interactive voice response system with telephone number information associated with the communication terminal equipment; and

initiating an automatic call back with assistance from a further request for reserving, wherein a connection to the reserved agent communication terminal equipment is produced and transferred first and a call back connection to the associated terminal equipment is produced and transferred thereafter.

Claim 38. (New) A method for incorporating functions of an automatic call distribution system in an interactive voice response system that is called and controlled by communication terminal equipment of a communication network, the method comprising the steps of:

directly coupling the automatic call distribution (system) and the interactive voice response system;

connecting both the interactive voice response system and the automatic call distribution system to a communication system of the communication network;

connecting at least one agent communication terminal equipment to the communication system;

allocating the at least one agent communication terminal equipment to the automatic call distribution system;

influencing the interactive voice response system by the communication terminal equipment wherein the interactive voice response system communicates a request for reserving an available one of the at least one agent communication terminal equipment to the automatic call distribution system;

reserving, via the automatic call distribution system, the available one of the at least one agent communication terminal equipment;

transferring, given the request for reserving, and reservation of, the agent communication terminal equipment, by the communication system and outside of the automatic call distribution system the communication terminal equipment from the interactive voice response system to the reserved agent communication terminal equipment; and

effecting transfer of the communication terminal equipment to the reserved agent communication terminal equipment by performance features of call back and transfer initialized by the interactive voice response system.

Claim 39. (New) A method for incorporating functions of an automatic call distribution system in an interactive voice response system that is called and controlled by communication terminal equipment of a communication network, the method comprising the steps of:

directly coupling the automatic call distribution system and the interactive voice response system;

connecting both the interactive voice response system and the automatic call distribution system to a communication system of the communication network;

connecting at least one agent communication terminal equipment to the communication system;

allocating the at least one agent communication terminal equipment to the automatic call distribution system;

influencing the interactive voice response system by the communication terminal equipment wherein the interactive voice response system communicates a request for reserving an available one of the at least one agent communication terminal equipment to the automatic call distribution system;

reserving, via the automatic call distribution system, the available one of the at least one agent communication terminal equipment;

transferring, given the request for reserving, and reservation of, the agent communication terminal equipment, by the communication system and outside of the automatic call distribution system the communication terminal equipment from the interactive voice response system to the reserved agent communication terminal equipment;

providing a request and an acknowledgment for each request for reserving between the interactive voice response system and the automatic call distribution system; and

providing request information associated with the request, the request information including a request function code, version information indicating a current version of the interactive voice response system communicating the request, identification identifying the respective automatic call distribution system, identification identifying the respective interactive voice response system, reference information identifying the request, and at least one request-dependent parameter.

Claim 40. (New) A method for incorporating functions of an automatic call distribution system in an interactive voice response system that is called and controlled by communication terminal equipment of a communication network, the method comprising the steps of:

directly coupling the automatic call distribution system and the interactive voice response system;

connecting both the interactive voice response system and the automatic call distribution system to a communication system of the communication network;

connecting at least one agent communication terminal equipment to the communication system;

allocating the at least one agent communication terminal equipment to the automatic call distribution system;

influencing the interactive voice response system by the communication terminal equipment wherein the interactive voice response system communicates a request for reserving an available one of the at least one agent communication terminal equipment to the automatic call distribution system;

reserving, via the automatic call distribution system, the available one of the at least one agent communication terminal equipment;

transferring, given the request for reserving, and reservation of, the agent communication terminal equipment, by the communication system and outside of the automatic call distribution system the communication terminal equipment from the interactive voice response system to the reserved agent communication terminal equipment;

providing a request and an acknowledgment for each request for reserving between the interactive voice response system and the automatic call distribution system; and

providing acknowledgment information associated with the request, the acknowledgment information including an acknowledgment function code, version information indicating a current version of the automatic call distribution system communicating the acknowledgment, identification identifying the respective automatic call distribution system, identification identifying the respective interactive voice response system, reference information identifying the acknowledgment, and at least one acknowledgment-dependent parameter.

Claim 41. (New) A method for incorporating functions of an automatic call distribution system in an interactive voice response system that is called and controlled by communication terminal equipment of a communication network, the method comprising the steps of:

directly coupling the automatic call distribution system and the interactive voice response system;

connecting both the interactive voice response system and the automatic call distribution system to a communication system of the communication network;

connecting at least one agent communication terminal equipment to the communication system;

allocating the at least one agent communication terminal equipment to the automatic call distribution system;

influencing the interactive voice response system by the communication terminal equipment wherein the interactive voice response system communicates a request for reserving an available one of the at least one agent communication terminal equipment to the automatic call distribution system;

reserving, via the automatic call distribution system, the available one of the at least one agent communication terminal equipment;

transferring, given the request for reserving, and reservation of, the agent communication terminal equipment, by the communication system and outside of the automatic call distribution system the communication terminal equipment from the interactive voice response system to the reserved agent communication terminal equipment;

inserting access protection information in a logon request;

communicating the logon request to log the interactive voice response system on at the automatic call distribution system;

inserting a check result of the logon request in a logon acknowledgment; and

answering the logon request by the automatic call distribution system with the logon acknowledgment.

Claim 42. (New) A method for incorporating functions of an automatic call distribution system in an interactive voice response system that is called and controlled by communication terminal equipment of a communication network, the method comprising the steps of:

directly coupling the automatic call distribution system and the interactive voice response system;

connecting both the interactive voice response system and the automatic call distribution system to a communication system of the communication network;

connecting at least one agent communication terminal equipment to the communication system;

allocating the at least one agent communication terminal equipment to the automatic call distribution system;

influencing the interactive voice response system by the communication terminal equipment wherein the interactive voice response system communicates a request for reserving an available one of the at least one agent communication terminal equipment to the automatic call distribution system;

reserving, via the automatic call distribution system, the available one of the at least one agent communication terminal equipment;

transferring, given the request for reserving, and reservation of, the agent communication terminal equipment, by the communication system and outside of the automatic call distribution system the communication terminal equipment from the interactive voice response system to the reserved agent communication terminal equipment;

inserting access protection information in a log off request;

communicating the log off request to log the interactive voice response system off at the automatic call distribution system;

inserting a check result of the log off request in a log off acknowledgment; and

answering the log off request by the automatic call distribution system with the log off acknowledgment.

Claim 43. (New) A method for incorporating functions of an automatic call distribution system in an interactive voice response system that is called and controlled by communication terminal equipment of a communication network, the method comprising the steps of:

directly coupling the automatic call distribution (system) and the interactive voice response system;

connecting both the interactive voice response system and the automatic call distribution system to a communication system of the communication network;

connecting at least one agent communication terminal equipment to the communication system;

allocating the at least one agent communication terminal equipment to the automatic call distribution system;

influencing the interactive voice response system by the communication terminal equipment wherein the interactive voice response system communicates a request for reserving an available one of the at least one agent communication terminal equipment to the automatic call distribution system;

reserving, via the automatic call distribution system, the available one of the at least one agent communication terminal equipment;

transferring, given the request for reserving, and reservation of, the agent communication terminal equipment, by the communication system and outside of the automatic call distribution

system the communication terminal equipment from the interactive voice response system to the reserved agent communication terminal equipment;

inserting service information, in a status request, indicating a requested agent communication terminal equipment as a parameter;

communicating the status request, which includes the parameter, of the associated automatic call distribution system from the interactive voice response system to the automatic call distribution system; and

communicating a status acknowledgment from the automatic call distribution system after the step of communicating a status request, wherein the status acknowledgment includes at least one of result information indicating a check of allowability of the status request, status information indicating an operating condition of the automatic call distribution system, agent information indicating the agent communication terminal equipment, report information indicating the agent communication terminal equipment, busy information indicating the agent communication terminal equipment, and availability information indicating the availability of the agent communication terminal equipment.

Claim 44. (New) A method for incorporating functions of an automatic call distribution system in an interactive voice response system that is called and controlled by communication terminal equipment of a communication network, the method comprising the steps of:

directly coupling the automatic call distribution (system) and the interactive voice response system;

connecting both the interactive voice response system and the automatic call distribution system to a communication system of the communication network;

connecting at least one agent communication terminal equipment to the communication system;

allocating the at least one agent communication terminal equipment to the automatic call distribution system;

influencing the interactive voice response system by the communication terminal equipment wherein the interactive voice response system communicates a request for reserving

an available one of the at least one agent communication terminal equipment to the automatic call distribution system;

reserving, via the automatic call distribution system, the available one of the at least one agent communication terminal equipment;

transferring, given the request for reserving, and reservation of, the agent communication terminal equipment, by the communication system and outside of the automatic call distribution system the communication terminal equipment from the interactive voice response system to the reserved agent communication terminal equipment; and

inserting in the reservation request a parameter which includes at least one of service information requesting an arbitrary agent communication terminal equipment of a group of agent communication terminal equipment, waiting information indicating a time span for waiting for one of a group of agent communication terminal equipment, and status information indicating one of the reporting and non-reporting of the status of the reservation request.

Claim 45. (New) A method for incorporating functions of an automatic call distribution system in an interactive voice response system that is called and controlled by communication terminal equipment of a communication network, the method comprising the steps of:

directly coupling the automatic call distribution system and the interactive voice response system;

connecting both the interactive voice response system and the automatic call distribution system to a communication system of the communication network;

connecting at least one agent communication terminal equipment to the communication system;

allocating the at least one agent communication terminal equipment to the automatic call distribution system;

influencing the interactive voice response system by the communication terminal equipment wherein the interactive voice response system communicates a request for reserving an available one of the at least one agent communication terminal equipment to the automatic call distribution system;

reserving, via the automatic call distribution system, the available one of the at least one agent communication terminal equipment;

transferring, given the request for reserving, and reservation of, the agent communication terminal equipment, by the communication system and outside of the automatic call distribution system the communication terminal equipment from the interactive voice response system to the reserved agent communication terminal equipment;

inserting in a display request a parameter which includes at least one of agent identification identifying a specific agent communication terminal equipment, information to be displayed at the agent communication terminal equipment, an attention information effecting an attention tone at the affected agent communication terminal equipment; and

communicating the display request from the interactive voice response system to the automatic call distribution system.